

Application No.: 09/855,343
Docket No.: DP6760US

REMARKS

The Office Action mailed April 04, 2004 was received and carefully considered. Upon entry of the amendments, claims 1-10 and claims 12, 13, 14 and 27 will be pending. Claims 15-26 are cancelled claims belonging to a nonelected invention. Claims 1-6 and 8-10, 12-14 and 27 stand rejected. The Examiner indicates that claim 7 contains patentable subject matter but is objected to for dependence upon a rejected base claim.

I. Amendments to the claims

Claims 1, 10 and 27 have been amended to recite a finish applicator positioned inside or below the quench zone to apply an amount of finishing liquid to the filament array, wherein the finish applicator comprises a base plate having a peripheral edge which corresponds to the cross-section of the array of moving molten filaments; and a tapered shaped body portion, the tapered shaped body having an angle beta (β) in the range of about 45 degrees to about 170 degrees for smoothly deflecting accumulated quench air from inside the filament array to outside the array and having a top and bottom concentric therewith and connected to said base plate, wherein said bottom corresponds in shape to the shape defined by the peripheral edge of the base plate, and having a surface formed by a plurality of lines drawn between said top and said bottom tapering outwardly with respect to the direction of movement of the filament array. Support for these amendments is found throughout the specification as originally filed.

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II. Rejections under 35 U.S.C. § 103(a)

Claims 1-4, 6, 8-10, 12-14 and 27 stand rejected as obvious over Linz (5,536,157) in view of any one of Vassilatos (4,687,610); Schilo et al. (5,612,063) or Knox (4,156,071). Applicants respectfully traverse this rejection.

Linz does not teach, disclose, or suggest Applicants' claimed melt spinning apparatuses of claims 1-10, 12-14, and 27. The melt spinning apparatus of Linz discloses only those apparatus and process features relating to quenching an expanded array of polymeric filaments with cooling air flowing from a centrally placed dispensing means radially outward toward the fibers. Conversely, the quench zone in Applicants' claimed invention receives an array of molten filaments which are cooled by a cooling gas passed inwardly to the array of filaments. The Applicants' claimed melt spinning apparatuses further includes a finish application means adapted to contact an expanded array of polymeric filaments about its periphery. However, no finish application means adapted for the inwardly flowing quench cooling means of our invention is found in Linz. Most importantly, the Applicants' inventive finish application means includes a tapered body portion for smoothly deflecting accumulated quench air from inside the filament array to outside the array. The Applicants' preference for a tapered finish applicator surface which smoothly deflects quench air from inside the filament array to the outside is embodied in the applicator shape which provides a gradient surface for the gradual removal of quench air in a radially uniform manner. As recited in the claims currently amended, the finish applicator base plate has a peripheral edge corresponding to the cross-section of the array of moving molten filaments; and a tapered shaped body portion, the tapered shaped body has an angle beta (β) in the range of about 45 degrees to about 170 degrees for smoothly deflecting accumulated quench air from inside the filament array to outside the array. This feature of the finish applicator body with a beta (β) angle in the range of about 45 degrees to about 170 degrees is

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not found in Linz or in any combination of references applied; Linz with any of Vassilatos, Knox, or Schilo.

Claims 5 stands rejected as obvious over Linz (5,536,157) in view of any one of Vassilatos (4,687,610); Schilo et al. (5,612,063) or Knox (4,156,071) and further in view of Stibal et al. (4,756,679) or Kyocera (JP10-77522). Applicants respectfully traverse this rejection. The peripheral fiber contact surface of the Applicants' finish applicator comprise a coating of a wear resistance ceramic oxide or other high strength material to protect the surface from sliding contact wear with the filaments passing over the surface. As supported in Applicants' originally filed specification, the wear resistance coating is a surface treatment. By contrast with especially Stibal and with Kyocera the finish applicators disclosed therein are not comprised of materials surface treated to form hard ceramic oxides or nitrides. Neither these references nor Linz, Vassilatos, Knox, and Schilo in their combinations disclose surface treatments for sliding contact wear resistance.

Since a *prima facie* case of obviousness has not been established by these references, Applicant respectfully submits that this rejection should be withdrawn.

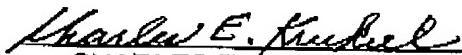
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Conclusion

For at least the reasons stated above, claims 1-10, 12-14, and 27 are in condition for allowance. Accordingly, Applicants respectfully request that the Application be allowed and passed to issue.

In the event any outstanding issues remain, Applicants would appreciate the courtesy of a telephone call to Applicants' undersigned representative to resolve such issues in an expeditious manner.

Respectfully submitted,



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